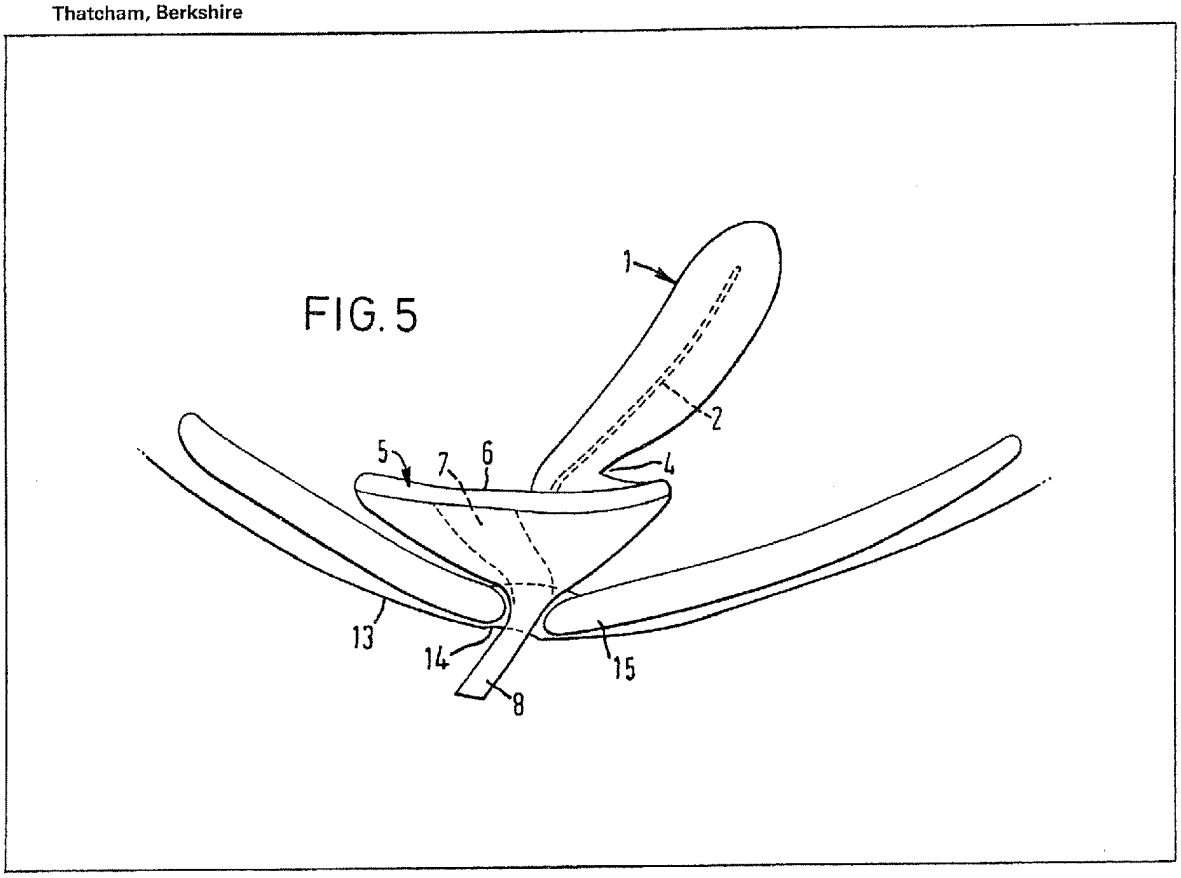
(12) UK Patent Application (19) GB (11) 2 090 144 A

(21) Application No **8139106**
(22) Date of filing **30 Dec 1981**
(30) Priority data
(31) **80/41577**
(32) **31 Dec 1980**
(33) **United Kingdom (GB)**
(43) Application published
7 Jul 1982
(51) **INT CL³**
A61F 5/44
(52) Domestic classification
A5R CE
(56) Documents cited
GB 1422638
GB 1253497
GB 1193261
GB 867348
GB 746430
GB 305417
(58) Field of search
A5R
(71) Applicants
Thames Valley Medical Limited,
Chatham Street, Reading, Berkshire RG1 7HT,
Charles David Brown,
4 Masefield Road, Thatcham, Berkshire
(72) Inventor
Charles David Brown
(74) Agent
J. B. King, Kings Patent Agency Limited, 146a Queen Victoria Street, London EC4V 5AT

(54) Female incontinence device

(57) An incontinence device for females comprises an integral elongated body (e.g. tampon) 1 and collecting member 5 having a crescent shaped upper profile 6. The forward part of member 5 has a channel 7 communicating with a duct 8 leading to a collecting bag (not shown). Optionally parts 13 with a buttonhole 14 may be provided together with an absorbent pad 15. The member 5 is partially held by the labia and partially by the tampon to provide security.



GB 2 090 144 A

The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

FIG. 1

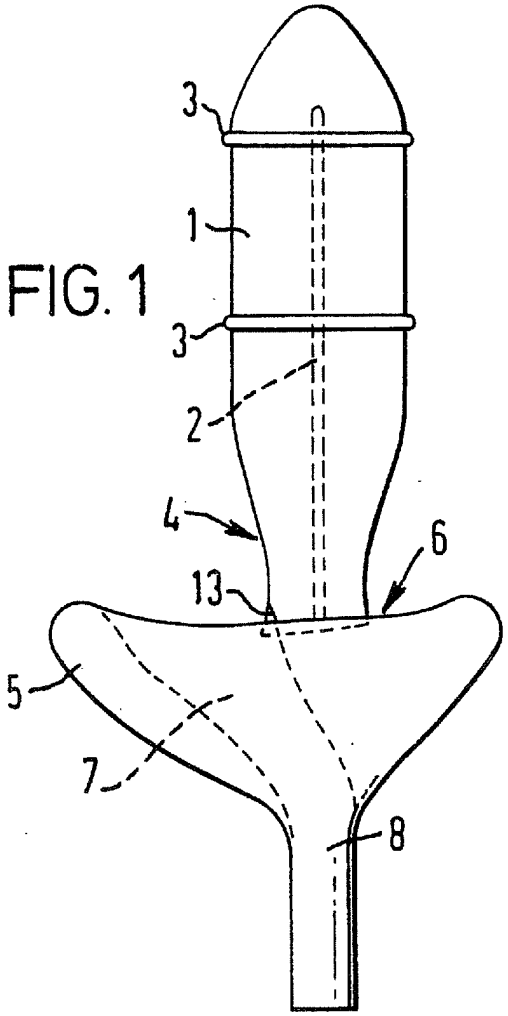


FIG. 3

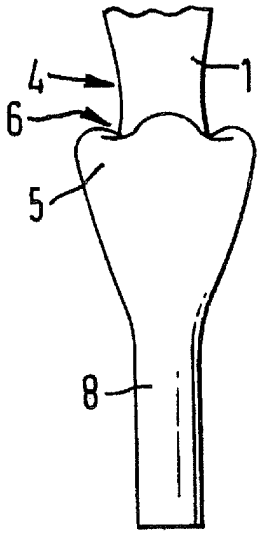


FIG. 2

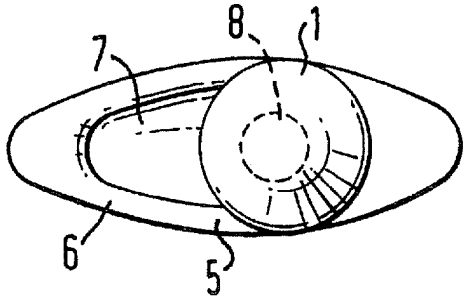
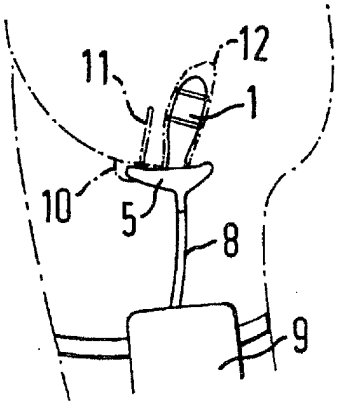


FIG. 4



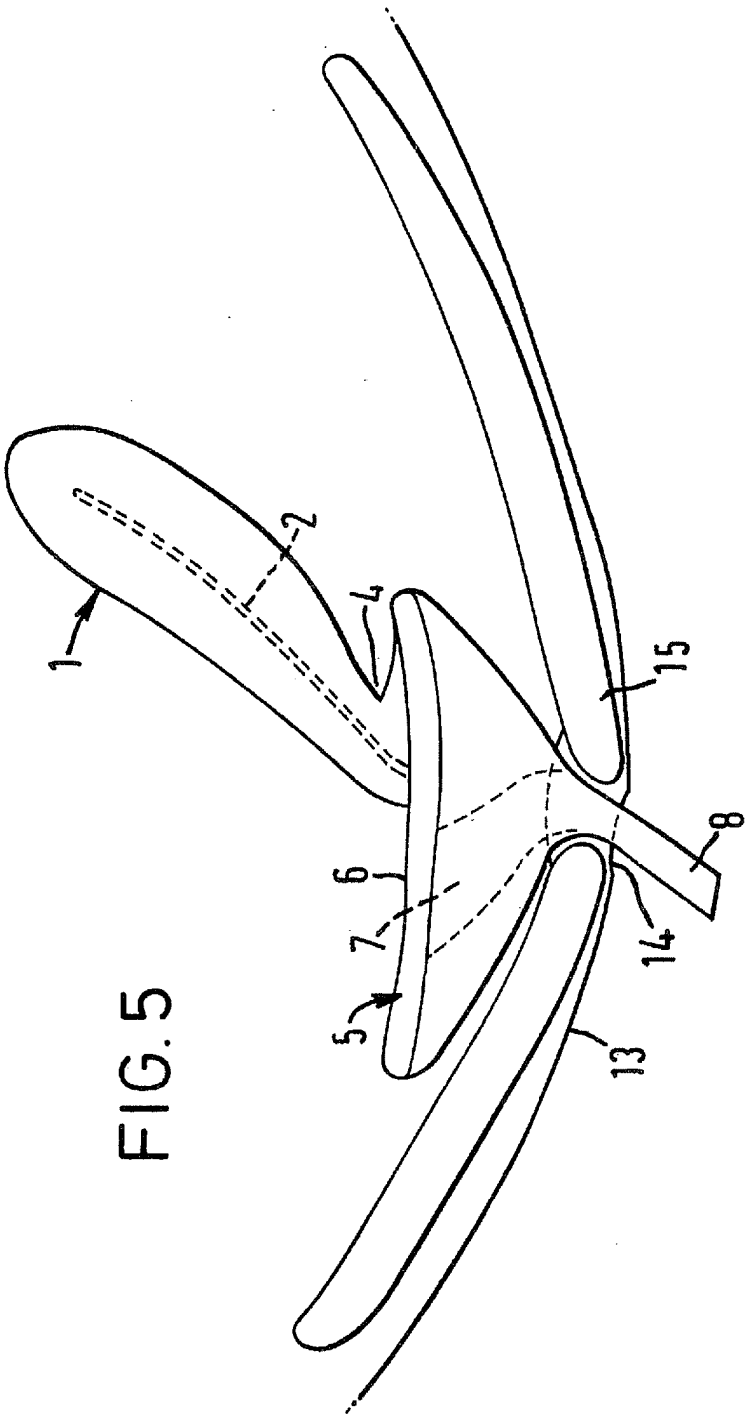


FIG.5

SPECIFICATION

Incontinence device for females

This invention relates to an incontinence device for females.

An object of this invention is to provide a device which is easily located and retained and inconspicuous.

According to this invention there is provided an incontinence device for females comprising an elongate body for insertion into the vagina of a wearer and an integrally connected member of cup shape with a normally forward part thereof having a channel to lie adjacent the urethral opening and connected through a duct with a liquid retaining enclosure.

An embodiment according to this invention is shown by way of example in the accompanying drawings wherein preferred features of the device are disclosed.

In the drawings:—

Figure 1 shows the device in side elevation,

Figure 2 shows the device in plan view,

Figure 3 shows part of the device in front view,

Figure 4 shows schematically the device in position, and

Figure 5 shows a modification of the device.

Referring to Figures 1 to 3 the device comprises an elongate body or tampon 1 which may optionally include a rigid rod 2 to faciliate insertion and ribs 3 to assist retention with the vagina of the wearer. The rod 2 may be made deformable so that the tampon may be positioned to suit a wearer. The base of the tampon body 1 is preferably tapered as shown at 4 whereby natural muscular contraction at the vaginal opening acts to cause upward force on the tampon body. The body 1 is connected with a cup shaped collecting member 5 of which the upper surface profile 6 is generally of crescent shape. The forward part of the member 5 has a channel 7 which communicates with a duct 8 leading to a urine collecting bag 9 (see Figure 4). The device is arranged so that upon insertion of the body 1 into the vagina 12 the forward part of the member 5 lies within the labia 10 around the urethral opening 11 and has intimate contact therewith forming a seal with the channel 7 in communication with the urethral opening. Duct 8 is connected with a plastic leg bag 9.

This device provides for retention by the vagina through the lifting action and anchorage through positioning within the labia, and by forming the member 5 of a cushion material good sealing is obtained as well as comfort.

When urine is passed it flows from the urethra into the drainage channel 7 and is carried through the drain tube 8 to the external bag or other appliance 9. The large drainage channel 7 and 9 crescent shaped inset 13 in the tampon base allow for continual flow and anatomical variances.

The device may be produced from rubber, silicone material or equivalents and the tampon part can be either solid or filled with a gel. The insert 2 is preferably of wire.

Referring to Figure 5 this shows a modified shape of device but having a construction broadly as previously described. Pants with 10 an opening 11 to provide extra support for the device may be provided and, where used, will form an integral part. These act to hold the devices position as an addition to the tampon.

In cases of slight leakage an absorbent pad 12 can be an integral part of the pants, existing incontinence pads can be adapted for use although pants may be provided with a button-hole opening. Such a support arrangement is optional.

In the device shown the tampon is an integral part but in a further modification (not shown) this could be omitted and the device is then held in place by the pants, wherein the labia of the vulva would hold the device in place. The construction of the collecting member 5 allows same to be retained without tampon or pants and such a modification is within the scope of the present invention.

The device is made of either Latex, or other rubber, or plastic material, or Silicone plastic, or a polymer or a combination of these or of any one with a coating, bonding or filling of any other, e.g. the base 5 could be latex coated with silicone polymer and the cushion filled with silicone gel, and the tampon of silicone plastic filled with silica gel. There is also the possibility of a disposable cover of polythene or other material.

CLAIMS

1. An incontinence device for females comprising an elongate body for insertion into the vagina of a wearer and an integrally connected member of cup shape with a normally forward part thereof having a channel to lie adjacent the urethral opening and connected through a duct with a liquid retaining enclosure.

2. A device as claimed in Claim 1, wherein the elongate body comprises a tampon structure with a reinforcement member embedded therein.

3. A device as claimed in Claim 1 or 2, wherein at the juncture between the elongate body and the cup shape member, the elongate body tapers to form a waisted zone.

4. A device as claimed in any preceding claim, wherein the upper surface profile of the cup-shape member is of a crescent shape.

5. A device as claimed in any preceding claim, wherein the cup-shape member, in plan, tapers forwardly.

6. A device as claimed in any preceding claim, in combination with pants having an opening through which the duct passes.

7. A device as claimed in any preceding claim, wherein the cup-shape member has the normally forward part thereof shaped to lie partially within the labia and retained thereby.

8. A modification of the device claimed in Claim 7, wherein the elongate body is omitted.

9. A device in accordance with any preceding claim, wherein the cup-shape member is of a

resilient material.

10. A device in accordance with any preceding Claim 1 to 7 or 9, wherein the elongate body comprises a resilient material such as a rubber or silicone material.

11. A device in accordance with Claim 10, wherein the elongate body is filled with a gel and includes a rigid but deformable reinforcement rod.

12. A device for the purpose herein set forth and broadly as herein described and exemplified and with particular reference to Figures 1 to 4 or 5 of the accompanying drawings.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1982. Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.